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*Installation of Two Predispersing Systems on the  
Ellipsometer*

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## FOURTH QUARTER

## RESEARCH PLAN

This quarter has been devoted to the installation of two predispersing systems on the ellipsometer as well as to the elimination of systematic and random noise.

## RESULTS

- A) A grating predisperser has been installed which is also driven by the computer and reduces by 4 orders of magnitude the scattered light in the system thereby permitting greater accuracy in the higher photon energy range.
- B) A prism predispersing system has been installed as well which allows us to eliminate higher orders and therefore spares us the need to use automatic filter positioning.
- C) A systematic tracking of all random noise sources has allowed us to improve the signal to noise ratio by a factor of two thereby making it easier to carry out first, second and third numerical derivations of the experimental signal.

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